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Bill J. Peck

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INTELLECTUAL PROPERTY ADMINISTRATION,LEGAL DEPT.
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EXAMINER

WILDER, CYNTHIA B

ART UNIT

PAPER NUMBER

1637

NOTIFICATION DATE

DELIVERY MODE

10/20/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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IPOPS.LEGAL@agilent.com

ATTACHMENT TO ADVISORY ACTION

1. Applicant's amendment after-final filed on 9/22/2008 is acknowledged. The amendment will not be entered because it does not place the claims in better condition for appeal. Accordingly, the rejections under 35 USC 102(b) as being anticipated by Bass et al and the rejections under 35 USC 103(a) as being unpatentable over Bass et al in view of Anderson et al as set forth in the Final Office mailed 7/21/2008 are maintained. The Examiner's response to Applicant's remarks appears below.

Response to Arguments

2. Applicant traverses the rejections on the following grounds: Applicant states that Bass et al does not disclose the displacement steps (d and h) of claim 1, where these steps recite "removing deblocking fluid from the deblocked surface by displacing the deblocking fluid with a wash fluid". Applicant state that the cited passage noted by the Examiner merely states that one or more intermediate steps may be required in each cycle, such as washing steps. Applicant states that however, the claim recited removing the deblocking fluid by displacing the deblocked fluid with a wash fluid are nowhere to be found in Bass. Applicant states that the contrary to The examine allegation, the washing step disclosed by Bass does not necessarily require the missing claim limitation as thee are many other ways of performing wash without displacing the deblocking fluid with a wash fluid. Applicant then cites Gamble et al (US 5981733), wherein an array substrate is subjected to a wash stream and is then dried with a stream of compressed gas. Applicant states that since displacing the deblocking fluid

Art Unit: 1637

with a wash fluid is not necessarily presented in Bass, it cannot be inherently disclosed in Bass.

With regards to the prior art rejection as being unpatentable over Bass in view of Anderson, Applicant states that Bass et al does not inherently teach displacing the deblocking fluid with a wash fluid for the reasons previously discussed above. Applicant further states that Bass does not suggest the claim limitation since details regarding how the washing steps are performed are nowhere to be found in the Bass. Applicant states that since Anderson is solely cited for the type of washing fluid and blocking fluid as asserted by the Examiner, Anderson does not remedy the deficiencies of not teaching or suggesting step) and h). With regard to claim 10, Applicant states that the Examiner's assertion that Anderson teaches the importance of flow rate is unsupported. Applicant states that nowhere is there a teaching or suggestion of flow rate. With regards to the claim 11, Applicant states that the passages are silent with regards to sensing the movement of stratified fluid interface and rather only illustrates the behavior of liquids that are introduced sequentially in increasing density. With regards to the claims 12-14, Applicant states that none of the references teaches a flow cell and thus the interpretation by the Examiner is a misconstruction of the art as an addressable array in a rotating rotor cannot exist as solid supports in suspension. Applicant request the rejections be withdrawn.

3. All of the arguments have been thoroughly reviewed and considered but are not found persuasive: In response to Applicant's arguments concerning the teaching of Bass and the "displacing step and washing step", the Examiner respectfully disagrees

Art Unit: 1637

with Applicant's arguments. Applicant appears to suggest that the Examiner has improperly interpreted the claimed limitations by suggesting that the displacing step is inherent in the intermediate washing steps of Bass. However, Applicant fails to properly interpret this limitation. The Federal Circuit discussed claim interpretation by the PTO in *In re Morris*, where the Federal Circuit noted “[A]s an initial matter, the PTO applies to the verbiage of the proposed claims the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art, taking into account whatever enlightenment by way of definitions or otherwise that may be afforded by the written description contained in the applicant's specification.” *In re Morris*, 44 USPQ2d 1023, 1029 (Fed. Cir. 1997). The decision of the court in *In re Bigio*, 72 USPQ2d 1209 (Fed. Cir. 2004) strongly supports the breadth of interpretation. That court noted “[T]his court counsels the PTO to avoid the temptation to limit broad claim terms solely on the basis of specification passages.” In concert with *Morris* and *Bigio* is the decision in *In re American Academy of Science Tech Center*, 70 USPQ2d 1827, 1834 (Fed. Cir. 2004), where the Federal Circuit noted “We have cautioned against reading limitations into a claim from the preferred embodiment described in the specification, even if it is the only embodiment described, absent clear disclaimer in the specification.”

In this case, the specification does not provide a limiting definition of the terms "displacing" or "washing". At pages 3 and 32, the specification suggest that the term "displaced" can be defined as "pushing" or "purging" by using a lower density wash fluid. The Merriam-Webster's online dictionary defines the term "wash" in the following

Art Unit: 1637

manner:

"1 a: to cleanse by or as if by the action of liquid (as water) b: to remove (as dirt) by rubbing or drenching with liquid; to flush or moisten with a liquid **b** (1): to wet thoroughly: DRENCH (2): to pass a liquid (as water) over or through especially so as to carry off material from the surface or interior".

Bass teaches that one or more intermediate washing steps are encompassed by the invention for array fabrication which meets the limitation of displacing a fluid as defined by Applicant's specification. Bass additionally teaches wherein the apparatus comprises a flood station which exposes the substrate to different cycles which includes washing cycles (see for example last paragraph of col. 8 to first paragraph of col. 9). These intermediate washing steps inherently implies that something has been removed, flushed, pushed or purged as defined above both by Applicant's specification and by the Merriam-Webster online dictionary.

Further, in regards to Applicant's arguments that a substrate can be washed without displacement of fluids, it is noted that the reference of Gamble (cited by Applicant at page 8 of the remarks) expressly teaches at col. 13, lines 11-12 that "This washing step (as noted by Applicant) removes any extra, unreacted deprotected reagents from the substrate". Hence, Gamble supports the Examiner's interpretation that a "washing step" will displace fluid from a substrate surface. While the examiner agrees that that Bass does not teach what the washing fluid is, this limitation is found in the teaching of Anderson (citation made of record in the prior Office action).

In regards to Applicant's arguments concerning the flow rate, The Examiner again notes that Anderson teaches the importance of the movement of fluid, hence the rate of the flow of fluid. Anderson states in the abstract that the method and apparatus

Art Unit: 1637

facilitates precise control of fluid flow (flow rate). Thus the Examiner maintains that Anderson meets the limitations. Further, the flow rate as determine by Applicant appears to be obtained by routine optimization of the reagent conditions. MPEP states that “[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation.” *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955). Routine optimization is not considered inventive and no evidence has been presented that the selection of flow rate was other than routine, that the products resulting from the optimization have any unexpected properties, or that the results should be considered unexpected in any way as compared to the closest prior art. Thus this argument is not found persuasive.

In regards to Applicant's arguments concerning "sensing movement of stratified fluid interface, it is again noted that the courts have established that during patent examination the pending claims must be interpreted as broadly as their terms reasonably allow (*In re Zletz*, 893 F.2d 321-22, 13 USPQ2d 1320, 1322 (*Fed. Cir.* 1989)). In this case, Applicant does not provide a limiting definition of the terms and further given the broadest reasonable interpretation, any type of detection of movement of the fluids would be considered to meet the claims. Anderson provides these limitations in detecting the movement of fluids during rotations. Thus this argument is not found persuasive.

In regards to Applicant's arguments concerning a flow cell, it is noted that Bass teaches a flow cell or chamber which comprises ports for the movement of fluids (col. 11). Likewise, Anderson teaches wherein the device comprises flow cell chambers

Art Unit: 1637

and channels for fluid movement (see e.g., col. 5, 7 and 8). These arguments are not found persuasive. Accordingly, the rejections are maintained.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CYNTHIA B. WILDER whose telephone number is (571)272-0791. The examiner can normally be reached on a flexible schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Benzion can be reached on (571) 272-0782. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/CBW/